

QIBA Lung Density Biomarker Committee (BC) Call

September 13, 2017 at 2 PM CT

Call Summary

In attendance

Sean Fain, PhD (Co-Chair)

David Lynch, MD (Co-Chair)

Heather Chen-Mayer, PhD

Charles Hatt, PhD

Bernice Hoppel, PhD

Stephen Humphries, PhD

Philip Judy, PhD

Miranda Kirby, PhD

Nancy Obuchowski, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Discussion included:

RSNA 2017 Poster Assignments:

- Dr. Fain requested that team members have a PowerPoint panel with graphics and accompanying text ready **by the October 11th call** for group review of the draft poster
- Examples of [previous posters](#) are available on the QIBA wiki; Dr. Fain has PowerPoint templates
- Assignments include:
 - Drs. Humphries / Lynch: Groundwork projects, dose reduction aspects, volume correction, field test
 - Dr. Chen-Mayer: update on the phantom foams
 - Drs. Hatt / Kirby: software comparison study
 - Dr. Fain: Profile development status
 - Drs. Estepar and Vegas-Sanchez-Ferrero: AEC validation
 - Drs. Hoppel, Hoelzer, and Crotty: vendor conformance documents

Profile:

- Internal BC review is ongoing; Team member comments are requested **by 9/27**, in efforts to move the Profile forward to the Public Comment phase
- Conformance standard or document to be provided by each vendor instead of specific protocols
- Dr. Chen-Mayer to add some language regarding the phantom foams and achieving proper slope-fit near Figure 3, e.g., quadratic vs. linear models
- Dr. Judy shared comments regarding systematic difference between the standard deviation of the air-hole CT numbers and the standard deviation of the water-bottle CT numbers
- Once internal review is complete, a BC [vote by email ballot](#) will be needed to release the Profile for public comment per the [Profile Process](#) outlined by the Process Committee

Comparative Algorithm Study update:

- There are now 12 participants signed up for the comparative study: 7 academic and 5 commercial
- Instructions are needed to participate
- The team is waiting for completion of the COPDGene CT data curation
 - There was corruption in some downloadable files; a few patient scans needed to be re-uploaded
- Dr. Hatt will conduct a beta test of the downloads, then draft a results form and study instructions

Harmonization field testing (Dr. Humphries):

- Four sites have returned phantom scans including:
 - National Jewish
 - University of Iowa
 - University of Pittsburgh
 - University of Michigan
- One more site is expected to return results
- Dr. Humphries is collating the data into a format suitable for analysis
- Any volunteers to aid with the harmonization model would be much appreciated
- Goal is to present an interim analysis by RSNA 2017

Supplemental funding:

- BC leadership has approached COPDGene for supplemental funding to complete the Phase II protocol
- Aims created by Drs. Estepar and Vegas-Sanchez-Ferrero regarding spatial noise correction were sent to COPDGene leadership for consideration; the Lung Density BC would like to incorporate these aims into field testing efforts
- Good news was received regarding COPDGene (Dr. Crapo) being funded for another 5 years
- Dr. Lynch to ask Dr. Sullivan to liaise between NHLBI and NIBIB to help the BC navigate processes correctly
- No deadline has been set for application to the BC's knowledge
- Dr. Fain hopes to have a firmer plan in place by November

Next call: Updates on the proposed comparative study will be discussed, Profile comments, and poster assignment updates
[Wednesday, October 11, 2017 at 2 pm CT](#)

SAVE-THE-DATE: QIBA Working Meeting at RSNA 2017 | Wednesday, November 29, 2:30-6 pm – Lakeside Center

